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SB 100 Joint LSE Comments

Additional submitted attachment is included below.



October 22, 2020

California Energy Commission
Docket Office
1516 Ninth Street
Sacramento, CA 95814-5512

Joint Agencies: California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Air Resources Board (CARB)

**RE: Joint Load Serving Entities Comments on the SB 100 Joint Agency Report's
September 2, 2020 Draft Modeling Results Workshop; Docket No. 19-SB-100**

Dear Commissioners and Board Members:

San Diego Gas & Electric, Pacific Gas and Electric, the California Community Choice Association, the California Municipal Utilities Association, and Turlock Irrigation District represent a diverse set of electric load serving entities, the majority of all delivered electricity in five California balancing authorities, and are hereby referred to as the Joint Load Serving Entities (Joint LSEs). The Joint LSEs appreciate the Joint Agencies' on-going efforts to model California's future decarbonized energy system as required by SB 100. The Joint LSEs appreciate the thoughtful approach to scenario analysis and are generally supportive of the modeling effort shared at the workshop. We also appreciate the opportunity to submit the following comments regarding the September 2, 2020, Draft Modeling Results Workshop on the Senate Bill 100 (SB 100) Joint Agency Report.

Recent weather-related events make it abundantly clear that bold action is necessary to reduce carbon emissions across all sectors. California is experiencing unprecedented weather and fire patterns every year, spending billions of dollars annually on climate resilience and disaster recovery activities in response to the threats posed by climate change. The Joint LSEs are committed to partnering with the Joint Agencies and other energy agencies to model cost-effective and sustainable paths to meeting 100 percent of the state's retail electricity sales with renewable and zero-carbon resources by 2045 and further decarbonizing California's energy systems, including not only electricity and natural gas, but also the increasingly urgent transportation and industrial sectors.

Recent events also highlight that the clean energy transition must be accomplished alongside maintaining reliability and affordability, which is supported by retaining technological and strategic flexibility. The goals set forth in SB 100 call for a complete transformation of the way energy is generated, delivered and consumed. Although the paths to reach SB 100 goals remain unknown, the recent rolling blackouts of August 14 and 15 reaffirm the importance of incorporating a robust reliability analysis into modeling processes.

Similarly, evidence of severe and systemic economic disparities confirms that we must very seriously consider affordability and socioeconomic impacts as we plan California's decarbonized future. In addition to the clear policy need to mitigate customer impacts, continued public support for California's clean energy goals relies on the public's faith in reliable and affordable energy systems.

In this letter, the Joint LSEs wish to emphasize the importance of appropriate consideration of energy system reliability and affordability in each of the SB 100 scenarios. Further, given the broad nature and deep view taken in the SB 100 proceeding, its conclusions should be viewed by policymakers as directional and illustrative rather than specific in their policy guidance. While policymakers may wish to utilize the results of the SB 100 study to inform long-term planning and policymaking, its broad strokes results should not be considered a replacement for or competing view relative to other existing planning processes, such as the Integrated Resource Planning (IRP) process, other state agency planning programs, or the CAISO's Transmission Planning Process (TPP), where a narrower scope has allowed more precision and rigor with regard to reliability, affordability and feasibility.

The Joint LSEs urge the Joint Agencies to incorporate the following recommendations into the current modeling efforts so that the report submitted by the Joint Agencies to the Legislature meets the goals set by SB 100 in the most effective way possible. The Joint LSEs understand changes to the current models are not possible prior to January 2021. It is important that the SB 100 Report be based on the latest knowledge and incorporate thorough reliability modeling. The Joint LSEs thus encourage the Joint Agencies to work with the Legislature to address the concerns put forth in this letter that would allow necessary modeling updates to be implemented and utilized in the creation of the first SB 100 Report. We suggest issuing the first SB 100 Report with caveats that further modifications to the modeling need to occur prior to the next study in four years. The Joint LSEs also strongly urge the Joint Agencies to be clear, in all SB 100 reports, that the SB 100 modeling results are directional-only and do not represent a "State Plan" to reach SB 100. The Joint LSEs believe it is imperative to make clear the directionality limitation of the SB 100 Reports to the Legislature, state agencies and the public.

A. Reliability

SB 100 requires that the Joint Agency report include an "evaluation identifying the potential benefits and impacts on system and local reliability associated with achieving" the goals of SB 100. The Joint Agencies need to ensure that the modeling scenarios that they are relying on to inform and guide the report incorporate reliability planning standards that guarantee the reliability needs of the system are met around the clock and that all costs, including transmission and distribution upgrades needed

to integrate additional zero-carbon resources, are accounted for. To that effect, the study should include a reliability assessment performed by the California Independent System Operator (CAISO), or additional analysis to ensure that the energy needs of the system are met at all times such as a full loss of load study and production cost modeling. Given the outsized role of storage resources in a decarbonized future, assessing energy sufficiency and other storage-related constraints will be critical to an accurate assessment of scenario reliability.

Further, the modeling should prioritize resources with full deliverability, or, to the extent resources with limited deliverability are selected, the model should explicitly account for the costs of associated transmission upgrades. The Joint LSEs echo CAISO's recommendation at the SB 100 workshop to complement the SB 100 study with CAISO's Transmission Planning Process. This reliability assessment is critical to confirm that the RESOLVE resource portfolio adequately addresses operational reliability needs and that any incremental costs associated with the infrastructure upgrades, needed to integrate additional zero-carbon resources, are included in the cost analysis.

Additionally, the Joint LSEs note that, for prior California studies, E3 developed cost and supply estimates of multiple technologies, such as drop-in renewable fuels, that were excluded from the SB 100 modeling.¹ The Joint LSEs believe that adopting technology and resource inclusivity will increase the model's access to resources that provide reliable and affordable solutions to meet SB 100 and that the current modeling studies, rather than moving the conversation forward, are a step back from what was done previously as they ignore a more inclusive approach.

At the Workshop, Joint Agency staff concluded that meeting SB 100 goals is achievable with current technologies. The Joint LSEs agree with the laudable policy intent of SB 100 goals and the broad conclusion that it will be achievable by 2045. However, the Joint LSEs caution that fully decarbonizing the electric system will require investment and innovation on an unprecedented scale. Given the aforementioned modeling limitations within the SB 100 study, it would be premature to utilize the current results of the SB 100 study to make conclusions regarding how to achieve SB 100 goals by 2045. The Joint LSEs look forward to working with the Joint Agencies to refine this long-term reliability analysis through the SB 100 proceeding, the CPUC and CEC IRP processes, and other statewide planning efforts.

B. Affordability

The draft modeling results showed total cost impacts for some scenarios but did not answer whether each of those scenarios was "affordable and reasonable." Section 5 454.53 (b)(2) requires that the Joint Agencies prevent unreasonable impacts to electricity rates. Realistic modeling that incorporates comprehensive cost inputs and

¹ *The Challenge of Retail Gas in California's Low-Carbon Future*; <https://ww2.energy.ca.gov/2019publications/CEC-500-2019-055/CEC-500-2019-055-F.pdf>

assumptions, including those related to transmission and distribution upgrades, must be utilized to realistically estimate costs and prevent unreasonable impact to rates. As stated above, cost estimates without an adequate reliability study implies an inaccurate level of precision of the Joint Agency findings.

While significant investments will be necessary to achieve SB 100 goals, it is critical that investments be thoughtfully targeted and managed to minimize cost impacts on energy consumers. Beyond the intrinsic harm of energy cost increases on socioeconomically disadvantaged communities and energy-intensive businesses, failure to appropriately manage energy costs may jeopardize the transition to Zero Emission Vehicles and decarbonized buildings. Long-term analysis should also include regular and transparent evaluations of cost impacts on consumers and implications for fuel switching, particularly from the transportation sector. Such evaluations should consider affordability metrics, such as hours at minimum wage, the affordability ratio, and the Socioeconomic Vulnerability Index.

C. Directionality and Report Timing

In addition to the above comments on reliability and affordability, the Joint LSEs agree with the Workshop presentation that the SB 100 Joint Agency Report to the Legislature should be clearly characterized as a directional study to provide insight to state agencies for further analysis and implementation considerations to achieve SB 100. Specifically, the SB 100 scenarios, modeling, and Reports do not represent a “State Plan” and should provide insight for, but not mandates to, other state planning policies such as the Integrated Resource Plan (IRP). For instance, it would be inappropriate to mandate technology adoption or exclude a particular technology from adoption in the IRP, or other proceedings, based on a technology’s inclusion or exclusion from the SB 100 study. The Report should also clearly state that the SB 100 modeling will be continuously refined as new information and improved modeling is made available.

As stated above the Joint LSEs also recommend that the January 2021 Report include clear caveats that full reliability assessments were not available in that iteration of SB 100 Reports, but future subsequent Reports will include reliability assessments using analysis such as loss of load studies and production cost modeling and, which would include an energy sufficiency test, to ensure system needs are met at all times. The Joint LSEs further suggest that the second SB 100 Report should be issued as soon as possible after SB 100 modeling incorporates reliability and should not wait until January 2025.

The Joint LSEs look forward to partnering with the state to design the policies and plan necessary to make SB 100 a reality. In the spirit of this collaboration, the Joint LSEs request that the Joint Agencies make the model and associated data accessible on the CEC docket such that stakeholders are able to further analyze the modeling and assumptions to collectively (Joint Agencies and stakeholders) improve the SB 100 study and Reports. The Joint LSEs appreciate

this opportunity to provide input to the Joint Agencies on how best to incorporate this important study into the many on-going regulatory processes which are further analyzing the long-term plan for the state's decarbonized energy system. The Joint LSEs appreciate the Joint Agencies' commitment to sponsor a detailed study of SB 100 scenarios and the evaluation of the potential solutions to reach California's clean energy future. The Joint LSEs are available to meet with the Joint Agencies and discuss the issues brought forth in this letter and other related SB 100 and clean energy related topics. Finally, the Joint LSEs would like to stress our support of this continued body of work and look forward to seeing how comments are incorporated into the draft report in November.

Cordially,



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